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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,815	07/30/2003	Tsutomu Ohzuku	43888-267	9492
7590 05/03/2007 MCDERMOTT, WILL & EMERY			EXAMINER	
600 13th Street	, N.W.		LEE, CYNTHIA K	
WASHINGTO	N, DC 20005-3096		ART UNIT PAPER NUMBER	
·			1745	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

				V.		
		Application No.	Applicant(s)			
		10/629,815	OHZUKU ET AL.			
. :	Office Action Summary	Examiner	Art Unit			
		Cynthia Lee	1745			
Period fo	The MAILING DATE of this communication app or Reply	ears on the cover sheet w	ith the correspondence address -	- .		
WHIC - Exter after - If NO - Failu	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DATE of time may be available under the provisions of 37 CFR 1.1. SIX (6) MONTHS from the mailing date of this communication. It is specified above, the maximum statutory period or reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNI 36(a). In no event, however, may a vill apply and will expire SIX (6) MON , cause the application to become Al	CATION. reply be timely filed NTHS from the mailing date of this communical BANDONED (35 U.S.C. § 133).			
Status						
1)⊠	Responsive to communication(s) filed on 20 Fe	ebruary 2007.				
2a)⊠	This action is FINAL . 2b) ☐ This action is non-final.					
3)	☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
	closed in accordance with the practice under E	x parte Quayle, 1935 C.E). 11, 453 O.G. 213.			
Dispositi	ion of Claims		•			
4)⊠ 5)□ 6)⊠ 7)□	Claim(s) 1-14 is/are pending in the application. 4a) Of the above claim(s) 13 is/are withdrawn f Claim(s) is/are allowed. Claim(s) 1-12 and 14 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/o	rom consideration.				
Applicati	on Papers					
	The specification is objected to by the Examine	r				
	The drawing(s) filed on is/are: a) ☐ acce		by the Examiner.			
.,	Applicant may not request that any objection to the	•	•			
	Replacement drawing sheet(s) including the correct		· ·	1(d).		
11)	The oath or declaration is objected to by the Ex	aminer. Note the attache	d Office Action or form PTO-152.			
Priority u	ınder 35 U.S.C. § 119					
a)[Acknowledgment is made of a claim for foreign All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the priority application from the International Bureausee the attached detailed Office action for a list	s have been received. s have been received in A rity documents have been u (PCT Rule 17.2(a)).	Application No I received in this National Stage			
Attachmen		_				
2) 🔲 Notic 3) 🔯 Inforr	te of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO/SB/08) or No(s)/Mail Date 3/5/07,2/20/07	Paper No(5) Notice of I	Summary (PTO-413) s)/Mail Date nformal Patent Application S:12/13/05,			

This Office Action is responsive to the amendment filed on 2/20/2007. Claims 1-14 are pending. Claim 13 is withdrawn from further consideration as being drawn to a non-elected invention.

Applicant's arguments have been considered, but are not persuasive. Thus, claims 1-12 and 14 are finally rejected for reasons of record and for reasons necessitated by applicant's amendment.

Information Disclosure Statement

The Applicant noted that only the second page of the IDS submitted on 12/13/2005 was considered. An initialed copy of the IDS submitted on 12/13/2005 is attached herewith per Applicant's request.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what "R3-m" means.

Applicant notes that Exhibit 1 is attached, which illustrates the hexagonal structure of a lithium transition metal oxide. However, this exhibit has not been submitted, and therefore, the rejection is maintained.

Claim Rejections - 35 USC § 102/103

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 and 10-12, and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ohzuku (Layered Lithium Insertion Material of LiCo_{1/3}Ni_{1/3}Mn_{1/3}O₂ for Lithium-Ion Batteries, Chemistry Letters 2001, the Chemical Society of Japan, pgs 642-643).

Ohzuku discloses a positive electrode material comprising the formula LiCo_{1/3}Ni_{1/3}Mn_{1/3}O₂ (see Abstract).

Ohzuku does not expressly disclose the crystal structure of the above formula as claimed by the Applicants in claims 1-4 and 6-8. However, the Examiner notes that while the prior art does not explicitly teach these properties, these are considered inherent in the prior art barring any differences shown by objective evidence between the positive electrode material disclosed in the prior art and the applicant. As the positive active material taught by the prior art and the applicant are identical within the scope of claim 10 and Example 1-2 in the Specification, Ohzuku inherently teaches the crystalline properties as claimed by the Applicants.

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A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature *is necessarily present in that which is described in the reference*. In re Robertson, 49 USPQ2d 1949 (1999). The courts have held that claiming of a property or characteristic which is inherently present in the prior art does not necessarily make the claim patentable. In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). See MPEP 2112 and 2112.01.

When the Examiner has provided a sound bases for believing that the products of the applicant and the prior art are the same, the burden of proof is shifted to the applicant to prove that the product shown in the prior art does not possess the characteristics of the claimed product. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Regarding claim 14, Ohzuku discloses a Li/LiCo_{1/3}Ni_{1/3}Mn_{1/3}O₂ cell (see fig. 3). A cell necessarily contains an electrolyte.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohzuku (Layered Lithium Insertion Material of LiCo_{1/3}Ni_{1/3}Mn_{1/3}O₂ for Lithium-Ion Batteries.

Chemistry Letters 2001, the Chemical Society of Japan, pgs 642-643) as applied to claim 1 above, and further in view of Miyasaka (US 6416902).

Ohzuku discloses all the elements of claim 1 and are incorporated herein.

Ohzuku discloses particles but does not disclose primary particles and secondary particles as claimed in Applicant's claim 9. However, Miyasaka discloses a lithium ion battery comprising a positive electrode with a mean grain size in the range of 1 to 30 um for secondary particles and in the range of 0.1 to 0.5 for primary particles (5:48-57).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have primary and secondary particles as taught by Miyasaka for the benefit of having two particle size distribution. Having two particle size distribution will enhance better packing of because smaller particles will be able to occupy void spaces between larger particles.

Response to Arguments

Applicant's arguments filed 2/20/2007 have been fully considered but they are not persuasive.

Applicant asserts that in prior art CL-010390, CoCO3 is used and thus, segregation of Co is observed in the prior art lithium metal oxide. Further, Applicant asserts in the declaration that in Exhibit A, there are Co-rich areas and Co-poor areas, clearly showing a widely varying distribution of cobalt in CL-010390. In contrast thereto, Exhibits A and B clearly illustrate that cobalt is uniformly dispersed throughout the positive electrode material according to the present invention.

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The Examiner notes that claim 1 does not require that the distribution of cobalt be uniform. Prior art still has been found to read on the instant claims because as shown in the Exhibit A, a distribution of cobalt exists, and thus read on the limitation "dispersed at the atomic level."

Applicant asserts that Miyasaka teaches away from the claimed positive electrode material because Miyasaka is directed to a different material than CL-010390, but it is unclear to the Examiner how the positive active material of Miyasaka is teaching away from the active material of CL-010390.

Applicant asserts that the two distributions of particles are not primary and secondary particles, as claimed, in that it is well-known in the art that secondary particles are formed by aggregating primary particles. In other words, secondary particles are distinct particles formed from primary particles, not merely different-sized particles as the Examiner has apparently asserted. In response, the Examiner notes that the Specification does not support this definition of secondary particles. Further, Miyasaka teaches that the "secondary particle" is a particle consisting of aggregated primary particles. Refer to 5:53-54.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Lee whose telephone number is 571-272-8699. The examiner can normally be reached on Monday-Friday 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's trainer, Susy Tsang-Foster can be reached on 571-272-1293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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ckl

Cynthia Lee

Patent Examiner

SUSYTSANG-FOSTER
DRIMARY EXAMINER